

April 16, 2001

David P. Boergers, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Docket No. PL01-1-000
Hydroelectric Licensing Policies, Procedures, and Regulations – Comprehensive Review

Dear Secretary Boergers,

As requested by Federal Energy Regulatory Commission (Commission) staff, this letter provides supplementary written comments of the U.S. Department of the Interior (Department) to the Commission on the report that the Commission is preparing pursuant to Section 603 of the Energy Act of 2000 (Public Law No. 106-469). Section 603 directs the Commission to immediately undertake, in consultation with the Federal resource agencies, a comprehensive review of policies, procedures, and regulations for the licensing of hydroelectric projects to determine how to reduce the cost of and the time for obtaining a license. The Commission is to report its findings, including any recommendations for legislative changes, to Congress by May 8, 2001.

The Department has conducted an independent analysis of project dockets using the Commission Issuance Posting System (CIPS) and Records and Information Management System (RIMS). Based on the licenses issued by the Commission in the seven year period 1994-2000, we examined:

- the time required to process a license application,
- the frequency with which resource agencies exercise their mandatory conditioning authority, and
- the effect which this exercise of authority has on processing time.

The detailed statistical analysis follows; however, some key findings are worth noting:

- The average processing time for an application, from the time an application was filed to the time a license was issued, was just over four and a half years, with the median less than four years. This was true for new licenses at existing projects and original licenses at new projects.
- On average, it took nearly two years from the time applications were filed to the time the Commission issued the notification that projects were ready for environmental analysis.
- Ninety-one percent of new licenses in our sample (141 of 155) were issued after the existing license expired, and 61 percent were issued more than one year after the expiration date.
- The Departments of the Interior and Commerce exercised one or more of their mandatory conditioning authorities under Sections 4(e) and 18 of the Federal Power Act (FPA) for 25 percent of licenses issued.
- There was no significant difference between the time for processing license applications for which mandatory conditioning authority was exercised and those applications for which it was not.

The finding that median processing time was under four years for projects licensed between 1994 and 2000 is particularly encouraging, because in the coming years we expect to realize further reductions in processing time as a result of continuing administrative reforms. Recent initiatives such as the Interagency Task Force on Improving Hydroelectric Processes (ITF) have affirmed a commitment to the collaborative process, to meeting deadlines, and to providing timely notification. The Commission has already reported a noticeable reduction in the number of Additional Information Requests (AIRs) which they have had to issue. In addition, the Department's new Mandatory Conditions Review Process establishes short deadlines (60 days) for establishing conditions, while the Fishway Policy being developed is expected to clarify the prescription process and improve consistency between the Departments of the Interior and Commerce. We are optimistic that the implementation of these and other administrative reforms will facilitate the licensing process.

Detailed as it is, the hypothesis testing that we have been able to conduct with the CIPS and RIMS data cannot determine why processing times are what they are, let alone whether these time periods are excessive or necessary for deliberative decision-making. The parties are engaged in numerous activities during the licensing process, and to determine the extent to which each activity contributes to the processing time calls for a more elaborate type of analysis. Because conventional multivariate regression analysis can lead to biased results and unwarranted conclusions when applied to time processes, statisticians have developed an analytic technique known as "event history analysis" (aka "survival" or "duration" analysis). Its application to licensing of hydropower facilities seems promising. Initially developed to analyze medical and engineering problems, it is now broadly applied to study behavioral and organizational issues. Therefore, the Department recommends that we join with the Commission in building a data set for all FERC-licensed projects, and in using this statistical technique to: (1) identify the degree

to which each element of the licensing process contributes to the length of the process; (2) determine whether the identified time periods are unnecessarily long; and (3) craft additional solutions to make the process more efficient.

The details of our statistical analysis follow. While our analysis provides a promising first look, more information needs to be collected and analyzed. We look forward to collaborating with the Commission on this important project.

I. Analysis of License Issuance and Processing Time

Description of the study: This study examines all those projects with licenses issued between 1994 and 2000. The data set includes some projects whose original licenses expired as long ago as the 1970s. The sample has two important characteristics. It is the most recent data available, and hence reflects more current experience; and it is a relatively large sample. In a seven year period, it can be expected that a representative cross-section of the universe of licensed projects will reach the licensing stage. Projects are included in the data set even if actions such as rehearings are still pending. The analysis is focused on the time it takes to process an application.

Licenses Issued: Between January 1, 1994, and December 31, 2000, The Commission issued licenses or exemptions for 228 hydroelectric projects on the Nation's waterways: 155 new licenses for existing projects, 55 original licenses, and 18 exemptions (Table 1.).

The projects were dispersed geographically. At least one hydropower license was issued in each of 34 of the lower 48 States and seven were issued in Alaska. The four States in which the largest number of licenses were issued were Wisconsin, Michigan, Maine, and New York.

Table 1. Type and number of licenses issued by the Federal Energy Regulatory Commission by calendar year, 1994 - 2000.

YEAR	NEW LICENSE	ORIGINAL	EXEMPTION
1994	44	9	2
1995	17	11	3
1996	27	6	5
1997	34	14	2
1998	13	7	2
1999	11	4	2
2000	9	4	2
TOTAL	155	55	18

New Licenses at Existing Projects: For new license proceedings, the mean processing time, measured from the date on which an applicant filed its license application to the date the Commission issued the license, was 4.66 years (Table 2). The median project required 3.99 years, reflecting the fact that the mean was affected by a few projects that required much longer than the typical time to be relicensed. The maximum processing time for a new license at an existing project was 23.75 years for the Cushman Project in Washington (Project No. 460); the

minimum 0.55 years for the Sinclair Project in Georgia (Project No. 1951.) Of the 155 projects relicensed, 9 required more than 10 years to complete the process.

Table 2. Processing Time in Years (Filing to Issuance) of New Licenses and Original Projects, 1994 - 2000.

YEAR	N	MEAN	MEDIAN	ST. DEV
New License	155	4.66	3.99	3.54
Original	55	4.44	3.62	2.87
TOTAL	210	4.60	3.87	3.37

Original Licenses: The results for the processing of original license applications were similar to those for new license proceedings (Table 2). The mean processing time for original licenses, again measured from the date the applicant filed its application to the date the Commission issued the license, was 4.44 years; the median was 3.62. The maximum time for

processing an original license was 14.08 years for the White River Project in Washington (Project No. 2494); the minimum was 0.96 years for the Power Creek Project in Alaska (Project No. 11243.) Of the 55 projects issued an original license, 3 required more than 10 years to complete the process, substantially shifting the mean away from the median. Of these, two were filed in 1983; the other, in 1985.

Extreme Values: Two projects are outliers whose processing time exceeded the mean by three standard deviations: Cushman in Washington (Project No. 460) at 23.75 years and Shawano in Wisconsin (Project No. 710) at 20.53 years. The circumstances surrounding each are highly unusual. At least in part, the length of time involved in processing these applications was unrelated to the conduct of the licensing process, and, as a result of the Commission's reform efforts in the last 10-15 years, many earlier licensing procedures which may have contributed unduly to the time for processing these two licenses have likely been replaced by more efficient procedures.

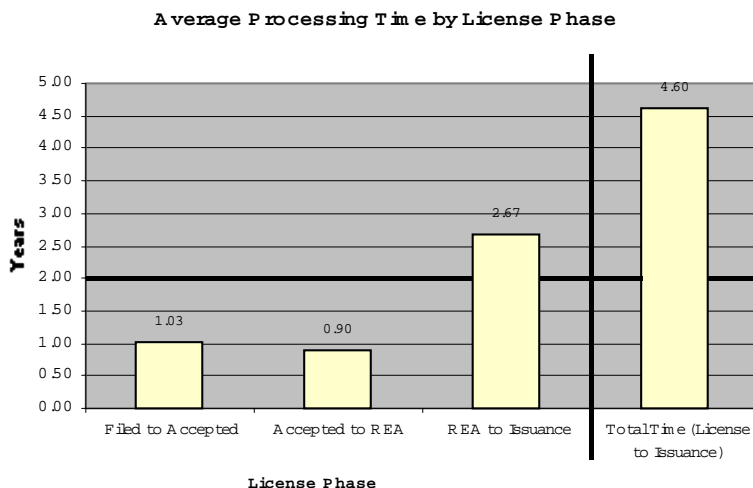
Table 3. Processing Time in Years (Filing to Issuance) of New Licenses and Original Projects, 1994 - 2000, without Cushman and Shawano

YEAR	N	MEAN	MEDIAN	ST. DEV
New License	153	4.44	3.97	2.93
Original	55	4.44	3.62	2.87
TOTAL	208	4.44	3.80	2.91

Distribution of Time: The licensing phase from the time of filing of the application to the issuance of the license can be divided into three distinct components: the period from filing to the acceptance of the license; the period from acceptance until the Commission deems that the application is ready for environmental analysis (REA); and the time from issuance of the REA notice until the Commission issues the license. During the first of these components the Commission staff reviews the application to determine whether it contains all required elements and whether the applicant has provided sufficient information to address the issues related to the project. If the Commission requests additional information in an AIR notice, it will grant the

applicant a period of time to comply with the request and correct the deficiencies in its application. Once the Commission accepts the application, resource agencies, Indian Tribes, and

Figure 1.



the public have 60 days to comment on the application, provide recommendations, and, in the case of the Departments of the Interior and Commerce, submit mandatory conditions. The applicant has 60 days to respond to comments, and based on the comments and responses, the Commission may again issue an AIR. The applicant usually has 60-90 days to provide the requested information. Once the Commission deems that the application is ready for environmental analysis, the

Commission conducts an Environmental Assessment (EA) and/or, if warranted, an Environmental Impact Statement (EIS). The law affords opportunities for public review and comment throughout this segment of the licensing phase.

Figure 1 displays the results for our sample, giving the average duration of each component of the licensing process:

- The average time from filing by the applicant to acceptance by the Commission is about one year;
- The average time from acceptance to the issuance of the REA is about 11 months; and
- The average time from issuance of the REA to issuance of the license is a little over 2.5 years.

Even though the calculation of averages is just the first stage in a statistical analysis, the means for the various components of the licensing process are quite revealing. As noted above, the participants are engaged in a great deal of work during the licensing process. The parties and the Commission are responsible for reviewing multiple documents, developing responses, and crafting and filing these responses to comply with demanding deadlines. In collaborative processes such as the ITF and the Electric Power Research Institute's National Review Group, administrative reforms have been developed which address expediting the work of all parties to the licensing process. However, as the Commission has observed in its guidance to project operators, an applicant's primary opportunity to expedite relicensing is through the preparation

of a complete and thorough application, thus avoiding the need for the Commission to issue one or more AIRs. There is a premium on getting information early in the process and on that information being the information needed for processing the application. We recommend that the Commission redouble its already considerable outreach efforts to applicants, clarifying what information is needed to process an application and why.

The underlying detail in the data provides additional insights:

- For the majority of projects (65 percent), the time between the acceptance of the application by the Commission and the expiration of the original license is only one to two years.
- Only four projects out of 155 were declared ready for environmental analysis more than two years before the original license expired.

NEPA preparation takes time. These two statistics indicate that for the predominant number of applications, the Commission does not have nearly enough time available to complete its NEPA responsibilities before the original license expires. The vast majority of new license applications in our sample (85 percent) were filed on time, exactly 2 years prior to expiration, leaving insufficient time for punctual processing of the application. (See the 2-year line in Figure 1.) In other contexts the norm for conducting an EIS at the Department is about 18 months. If the same is true for hydropower projects requiring an EIS, there is clearly not enough time allotted between the filing of the application and the expiration of the original license (24 months) for the Commission to process the application, do the NEPA work, and issue a timely license. Not surprisingly, 91 percent of new licenses at existing projects in our sample (141 of 155) were issued after the existing license expired, and 61 percent were issued more than one year after the expiration date.

It is possible to make the process more timely, with new licenses being issued simultaneously with the expiration of the original licenses. The Commission has the authority to initiate the licensing process sooner. People tend to be diligent about complying with deadlines. Relicensing existing projects is an entirely predictable workload. The Commission, the resource agencies, and the applicants know when licenses are due to expire; they know the nature of the individual projects and the prevailing issues at each project. Initiating the licensing process sooner would allow the parties to conduct their considerable workload and the Commission to issue licenses in a timely manner. After conducting the event history analysis recommended above, identifying streamlining measures that can be employed, and developing new targets for each step, we recommend that the Commission establish realistic schedules and deadlines based on those targets, so that relicensing can occur simultaneously with the expiration of existing licenses.

II. Analysis of the Exercise of Mandatory Conditioning Authority

Description of the study: There has been considerable interest in whether the exercise of mandatory conditioning by the Departments of the Interior and Commerce is related to the

duration of the licensing process. Hence, for those projects that were issued licenses between 1995 and 2000, we tested the null hypothesis that there is no significant difference in processing time for projects in which conditioning authority was exercised compared to projects for which it was not exercised. (Time constraints prevented us from compiling information for 1994, hence the slightly smaller sample size, 1995-2000 versus 1994-2000.)

Findings: For each of the 157 projects which were issued licenses (new or original) between January 1, 1995, and December 31, 2000, the Departments of the Interior and Commerce exercised mandatory conditioning authority in 40 cases, 25 percent of the total.

Table 4. Exercise of Mandatory Conditioning Authority by the Department of the Interior (DOI) and the Department of Commerce (NMFS) for projects licensed by the Federal Energy Regulatory Commission from 1995 through 2000*.

Year	No. of Licenses Issued	DOI and NMFS Exercise of Mandatory Conditioning Authorities*							Re-hearing	\$18 or §4(e) Contested
		DOI §18			DOI §4(e)	NMFS §18				
		Not Exercised	Reserved	Prescribed	Prescribed	Not Exercised	Reserved	Prescribed		
1995	28	11	17	4	3	26	2	1	15	1
1996	33	3	30	6	1	31	1	1	8	5
1997	48	12	34	12	3	43	2	3	24	3
1998	20	5	8	7	2	14	0	6	2	3
1999	15	6	8	1	0	13	1	1	3	1
2000	13	5	7	2	1	12	1	0	5	0
Total	157	42	104	32	10	139	7	12	57	13

*May not add across rows -- prescriptions and reservation of the right to prescribe in the future are not mutually exclusive.

The Department of the Interior exercised Section 4(e) conditioning authority on 10 projects (6 percent): five by the Bureau of Indian Affairs (BIA), two by the Bureau of Reclamation (BOR), two by the National Park Service (NPS), and one by the Bureau of Land Management (BLM) and BOR together.

The Department of the Interior, through the Fish and Wildlife Service (FWS), prescribed fishways pursuant to Section 18 of the FPA on 32 projects (20 percent of the total). The Department reserved the right to issue Section 18 prescriptions in the future on 104 projects (67 percent), including 21 projects for which fishways were also prescribed. For the remaining 42 projects, the FWS did not exercise its Section 18 authority. The Department of Commerce through the National Marine Fisheries Service (NMFS) prescribed fishways on 12 projects, generally in tandem with Interior. NMFS reserved their authority on seven projects, including one project for which fishways were also prescribed. NMFS took no action under Section 18 on 139 projects. It should be noted that FWS and NMFS have responsibilities over different fish resources.

The applicants accepted almost two-thirds of the Commission's licenses without challenge, seeking rehearing in only 57 of the 157 projects (36 percent). Applicants contested conditions

(either Section 18 or Section 4(e)) in 13 of these rehearing requests (23 percent of the 57). Applicants contested the prescription of fishways in 11 of the 57 requests for rehearing (19 percent).

To summarize, the overwhelming majority of licensings (75 percent) did not involve the exercise of mandatory conditioning authority. Of the 25 percent where conditioning authority was exercised, applicants requested rehearing in less than one-third.

Mandatory Conditioning Authority and Processing Time: We split the 157 licenses issued between 1995 and 2000 into two groups. One group of 117 did not receive mandatory conditions; the other group of 40 did receive mandatory conditions. As we indicated above, two projects in the sample are outliers whose processing time severely skews the distribution of processing times. For this reason we conducted the analysis with and without these outliers. The descriptive statistics for all three groups are displayed in Table 5.

In Figure 2 we plot the distributions of processing times for each of the two groups - with conditions and without conditions. The distributions are clearly similar. Each group has a few projects in the tail of the distribution.

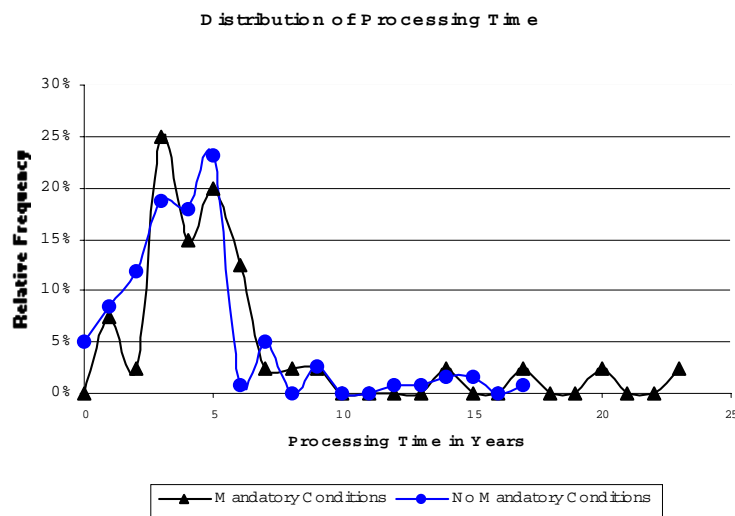
The statistical analysis confirms what casual observation of Figure 2 suggests: the distributions of processing times for projects with and without mandatory conditions are virtually similar. At the 95 percent confidence level, one is unable to reject the hypothesis that the means of the two groups (excluding the outliers) are identical. If one conducts the same test including the outliers, the null hypothesis is narrowly rejected at the 95 percent confidence level. However, the distributions are so similar that the slightest increase in the confidence interval (from the 95 to the 96 percent) reverses the results, i.e., the hypothesis that the means are identical cannot be rejected. Thus, the analysis shows that there is not a significant difference between the two groups.

Table 5. Descriptive Statistics for Groups With and Without Mandatory Conditions, 1995 - 2000

	No Mandatory Conditions	Mandatory Conditions	Mandatory Conditions w/o Outliers (Cushman and Shawano)
Count	117	40	38
Mean	4.74	6.10	5.26
Standard Error	0.29	0.76	0.50
Median	4.50	5.02	4.67
Standard Deviation	3.12	4.80	3.08
Minimum	0.55	1.02	1.02
Maximum	17.26	23.75	17.65

In light of the fact that the Department has recently committed itself to completing both the preliminary and the modified/final prescriptions in 60 days each, we find the results of this analysis of the effect of mandatory conditioning authority encouraging.

Figure 2.



III. Conclusions and Recommendations

The examination of the information contained in the RIMS and CIPS databases is revealing in a number of ways:

- The average processing time, from the time an application is filed to the time a license is issued, was just over four and a half years. This is true for both new licenses at existing projects and original licenses at new projects.
- The Departments of the Interior and Commerce exercised their mandatory conditioning authority for one-quarter of the of licenses issued.
- There was no significant difference between the time it took to process license applications for which mandatory conditions under Sections 4(e) and 18 of the FPA were prescribed and the time to process those for which prescription authority was not exercised.
- In light of the considerable amount of work to be done to process an application, the absolute length of the licensing process may not be unreasonable. Efforts to make it more efficient are being addressed through the collaborative coalitions. The process should be initiated earlier, however, so that the work required to process an application for a new license can be completed before the expiration of the original license.

To recap, we would recommend that in its report to Congress pursuant to Section 603 of the Energy Act of 2000, the Commission announce that, in association with others, it intends to undertake the following measures:

1. That the Commission and the Department jointly conduct an event history analysis to determine the amount of time taken by various steps conducted between the major milestones in the licensing process (e.g., between filing an application and its acceptance by FERC, between acceptance and the REA notice, and between the REA notice and license issuance). Based on the results of that analysis, we will develop a set of actions that we can jointly implement to minimize the amount of time involved in each step of the licensing process.
2. That FERC, the resource agencies, and a representative group of States and license holders jointly conduct an analysis of what information is typically not being made available at the time that applications for licenses are filed, and develop an informational and outreach program to improve the likelihood that applications are submitted with all of the information needed for expeditious processing. Reducing the need for the Commission to issue AIRs holds great promise for improving the process.
3. That once the two steps above are completed, that FERC, the States, and the resource agencies develop an optimum schedule for processing licenses. In particular, we would adjust the filing deadline to allow for a reasonable expectation that an application can actually be processed before the original license expires.

In addition, we note that some industry members commented during recent reform efforts about the possibility of conflicting guidance for applicants from multiple Federal resource agencies. Though not directly related to this statistical analysis, we think that there is some potential for a loss of time in the licensing process if this were to occur. There is an opportunity to improve the process for quick resolution of any such issues, and therefore we offer the following recommendation:

4. That the resource agencies develop a streamlined, interagency, issue-resolution process to resolve any incompatibilities that might develop between agencies in making recommendations or in establishing section 4(e) and 18 conditions. Applicants are entitled to a consistent Federal position. While it is not clear that this has been a problem, a resolution process will assure that applicants are afforded clear and uniform guidance.

We thank you for the opportunity to provide you with the results of our statistical analysis of processing times for hydropower licensing. We hope that these results will be helpful to you in the preparation of your forthcoming 603 report to Congress. While the results of our analysis have been insightful, extending and refining the analysis will allow us to craft improvements to the licensing process. We look forward to collaborating with the Commission in this important effort.

Sincerely,

William D. Bettenberg

Acting Deputy Assistant Secretary
Policy and International Affairs